

cases were confirmed with Congo red staining. Initial presentation, image findings, treatment and outcome were analyzed.

**Results:** Five localized amyloidosis are identified. Among them, two of them are originated from urinary bladder and three from renal pelvis and ureter. None of our cases showed evidence of systemic amyloidosis. Painless gross hematuria is the most frequent symptom of localized amyloidosis of the urinary tract. Patients with bladder involvement were treated with localized bladder resection; those with renal pelvis and ureter involvement, two underwent ureteroscopic resection and one received percutaneous nephroscopic resection. After surgical resection, no complications were noted in patients with bladder involvement. Of patients with ureter and renal pelvis involvement, one require long-term double-J exchange for persisted obstructive uropathy, two developed permanent decrease of renal function.

**Conclusion:** Localized amyloidosis of the urinary tract is a rare condition that mimicking malignancy of the urinary tracts. To pathologic diagnosis of amyloidosis of the urinary tract, Congo red stain is essential. The treatment is usually conservative with observation or surgical resection with long-term follow up. Amyloidosis of renal pelvis and ureter cause more severe consequences than those with bladder involvement.

#### MP3-10.

#### ARTERIOVENOUS FISTULAS OF THE KIDNEY: CASES REPORT AND LITERATURE REVIEW

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**Purpose:** Arteriovenous fistulas of the kidney are rare and are classified as acquired, idiopathic or arising in a congenital arteriovenous malformation which may leading to hypertension and acute heart failure. The treatment of Renal Arteriovenous fistula aims at preserving the most of the renal parenchyma and, concomitantly, eradicating the symptoms and hemodynamic effects caused by the Renal Arteriovenous fistula.

We would like to introduce the cases of Renal Arteriovenous fistula in our hospital.

**Materials and Methods:** We search our cases by identifying the final diagnosis as Renal Arteriovenous fistula within recent 10 year period (2005–2015).

**Case report:** Totally four cases were found as follows

**Conclusion:** Arteriovenous fistulas of the kidney are rare and are classified as acquired, idiopathic or arising in a congenital arteriovenous malformation. All of our four cases are idiopathic with three of them are symptomatic. All of them treated successfully by TAE with symptoms relieved and hemodynamics were stable. No obvious damage of renal function were noticed. We would like to share our cases and compare with literatures published to give a whole picture of the disease in diagnosis, treatment and Prognosis.

#### Moderated Poster-4

#### Oncology

##### MP4-1.

#### BENZYL ISOTHIOCYANATE UP-REGULATES MIR-99A-5P AND INDUCES AUTOPHAGY BY SUPPRESSING MTOR EXPRESSION IN HUMAN BLADDER CANCER CELLS

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**Purpose:** The development of novel methods for BC therapy, particularly for recurring BC, is warranted. Benzyl isothiocyanate (BITC) is a natural compound that produced by Brassicaceae species, and displays anticarcinogenic activities. Besides apoptosis induction, BITC also induces

autophagy through inhibiting mTOR. Human miR-99a-5p was reported to be down-regulated in BC and it potentially targets to mTOR. We therefore hypothesized that BITC may induce autophagy through regulating miR-99a-5p to suppress mTOR expression and its downstream signaling.

**Materials and Methods:** Human BC cell lines (5637 and T24) were used in this study. To facilitate the overexpression of miR-99a-5p, the matured miR-99a-5p was inserted to a small RNA expression vector (pSM) to generate pSM-99a. Detection of miR-99a-5p expression level in pSM-99a transfected or BITC-treated cells was performed by miRNA qPCR. We utilized a luciferase reporter vector bearing anti-sense miR-99a-5p sequences to confirm the up-regulation of miR-99a-5p, and to act as an inhibitor to the miR-99a-5p in BITC-treated BC cells. Protein expression level of LC3-II, mTOR, IGF1R, FGFR3 was monitored in pSM-99a transfected or BITC-treated cells using Western blot.

**Results:** We first verified that BITC decreased cell viability by induction of apoptosis in human BC cells, as it does in prostate cancer cells. BITC also induced autophagy through decreased the mTOR expression level. Overexpression of miR-99a-5p, which is down-regulated in bladder cancer cells, resulted in decreased cell viability and inhibition of mTOR protein level. We found the expression level of mTOR, IGF1R and FGFR3 that are direct targets of miR-99a-5p was decreased in BITC-treated as well as the pSM-99a transfected BC cells. These results lead us to detect the expression level of miR-99a-5p in BITC-treated cells. The expression level of miR-99a-5p in BITC-treated BC cells was detected by two methods: (a) miRNA qPCR and (b) luciferase reporter assays. The results showed that miR-99a-5p was up-regulated by BITC treatment. BITC induces autophagy by inhibiting mTOR expression; and forced expression of miR-99a-5p was able to mimic the autophagy induction and mTOR inhibition asin BITC-treated cells. The transfection of luciferase reporter that competes and inhibits BITC-induced miR-99a-5p resulted in the restoration of mTOR expression and decreased level of autophagy, suggesting autophagy induction in BITC-treated cells is partially, if not all, through the up-regulation of miR-99a-5p.

**Conclusion:** Our results indicated that miR-99a-5p plays an important role in BITC-induced autophagy in BC cells.

#### MP4-2.

#### PROGNOSTIC RELEVANCE OF RON EXPRESSION ON UPPER TRACT UROTHELIAL CARCINOMA

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**Purpose:** The oncogenic tyrosine kinase RON (recepteur d'origine Nantais) is involved in human bladder urothelial carcinogenesis and can cross-talk with epidermal growth factor receptor (EGFR) during nuclear translocation as a transcriptional factor. Despite this, little is known whether RON expression can impact the survival in patients with upper tract urothelial carcinoma (UTUC). The aim of the study is to investigate the frequency and clinicopathologic correlates of RON receptor expression in UTUC patients.

**Materials and Methods:** Immunohistochemical staining for RON, EGFR, and HER2 were done with serial sections from archival specimens of 125 patients who underwent nephroureterectomy plus bladder cuff resection (median follow-up 50 months, range 1 to 177). The correlates between RON receptor expression and overall survival were analyzed by Kaplan–Meier plots, with the log-rank test and Cox proportional hazards model.

**Results:** RON, EGFR, and HER2 expression was present in 45 of 125 (36.0%), 17 of 125 (13.6%), and 13 of 94 (13.8%) tumors, respectively. Among 45 RON (+) tumors, 8 (17.7 %) and 5 (11.1 %) had EGFR and HER2 co-expression, respectively. Overall, RON expression can predict with poorer disease-specific overall survival ( $p = 0.0051$ , HR, 2.36, 95 CI%, 1.33–4.92). Neither co-expressed with HER2 ( $p = 0.285$ , HR, 1.85, 95 CI%, 0.46–10.5) nor with EGFR ( $p = 0.900$ , HR, 1.06, 95 CI%, 0.36–3.13), the prognostic values did not reach any statistical significance due to small number of sub-group patients.

**Conclusion:** RON expression predicts for disease-specific overall survival in UTUC patients.